ISR & The Army Objective Force

"Know the enemy, know yourself; your victory will never be endangered. Know the ground, know the weather; your victory will then be total." Sun Tzu

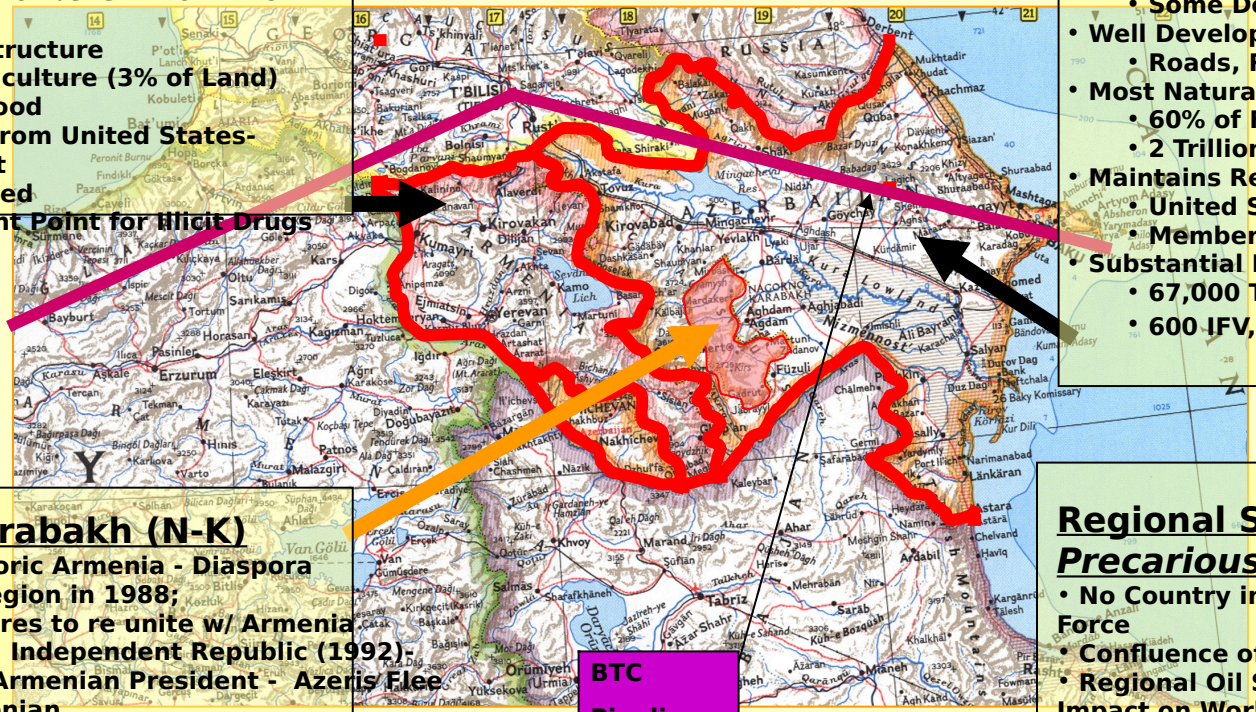
Headquarters
US Army Training and Doctrine Command

Caspian Region:
The Troubled Caucasus

Armenia
- Anclent nation with claims to land in TU, AZ
- Victims of Turkish/Azeri Genocide - 1915
- Considers Azerbaijan "failed state" - no reason to negotiate peace
- RU sptd Armenian move on N-K
  - $1B in arms since 1993
  - T-72 Tanks to SCUD Missiles
- Limited Natural Resources - Oil/Gas have nots - will not benefit from BTC Pipeline
- Limited Infrastructure
  - Weak Agriculture (3% of Land)
  - Imports Food
- $734M in Aid from United States- strong Expat spt
- Heavily Polluted
- Trans-shipment Point for Illicit Drugs

Armenian Genocide

Nagorno-Karabakh (N-K)
- Hayastan - historic Armenia - Diaspora
- Autonomous Region in 1988;
- Adopted Measures to re unite w/ Armenia
- Self-Proclaimed Independent Republic (1992)-
- Elected Ethnic Armenian President - Azeris Flee
- Ethnically Armenian
- Substantial Military
  - 13,000-15,000 Troops
  - 100 IFVs, 80 Tanks, 150 Artillery Pieces
  - Supported by Armenia
- Continued Conflict on Borders
- Developed Infrastructure
- Maintains Relationships with Armenia
- Armenia Supports N-K Independence
- Limited Resources
- Not Represented in Peacetalks



BTC Pipeline

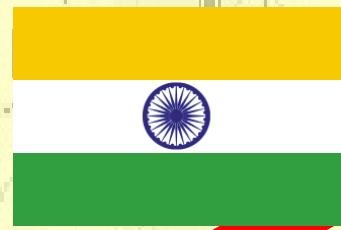
Azerbaijan
- Independent Republic, Elected President -
- Clans w Historic Ties to Turkey and Iran
- Country Divided by Conflict with Armenia
- Lost 20% of its Territory to Armenia in 199
  - Must Be Returned - Not Negotiable
- Three Internal Coups in 1990's
- Ongoing Insurgencies
- Major Environmental Problems
  - Air and Water Pollution
  - Some Deliberate Pollution by Armenia
- Well Developed Infrastructure
  - Roads, Rails and Airports
- Most Natural Gas and Oil Reserves in Regi
  - 60% of FSU Oil Reserves
  - 2 Trillion Cubic Meters of Natural Gas
- Maintains Relationships with:
  - United States, Turkey, Russia and Iran
  - Member of the UN
- Substantial Military
  - 67,000 Troops
  - 600 IFV, 260 Tanks, 260 Artillery Piece

Regional Situation - *Precarious*
- No Country in Region Can Prevail by Force
- Confluence of Russia, Turkey and Iran
- Regional Oil Supply Can Have Major Impact on World Oil Prices
  - 200 Billion Barrels of Oil
  - Gas Reserves Greater than North America
  - Could erode the Political Impact of OPEC
- 750,000 Refugees from Both Sides in the Region
- OSCE Sponsoring Peacetalks over the N-K Situation- Appears Favorable, But Will not Remove Volatility in the Region
- Baku-Tbilisi-Ceyhan (BTC) Pipeline is a

Potential Crises On Many Fronts: Religious, Ethnic, Economic…

External states drawn into potential crisis

Regional actors take steps to wield influence in Caspian region



Operational Environment circa 2010

- NATO expansion in region
- Tension between Russia and Turkey
- Instability in Former Soviet Union states
- Religious/Ethnic fault lines
- Aggressive China
- Simmering India / Pakistan situation
- Islamic Fundamentalism

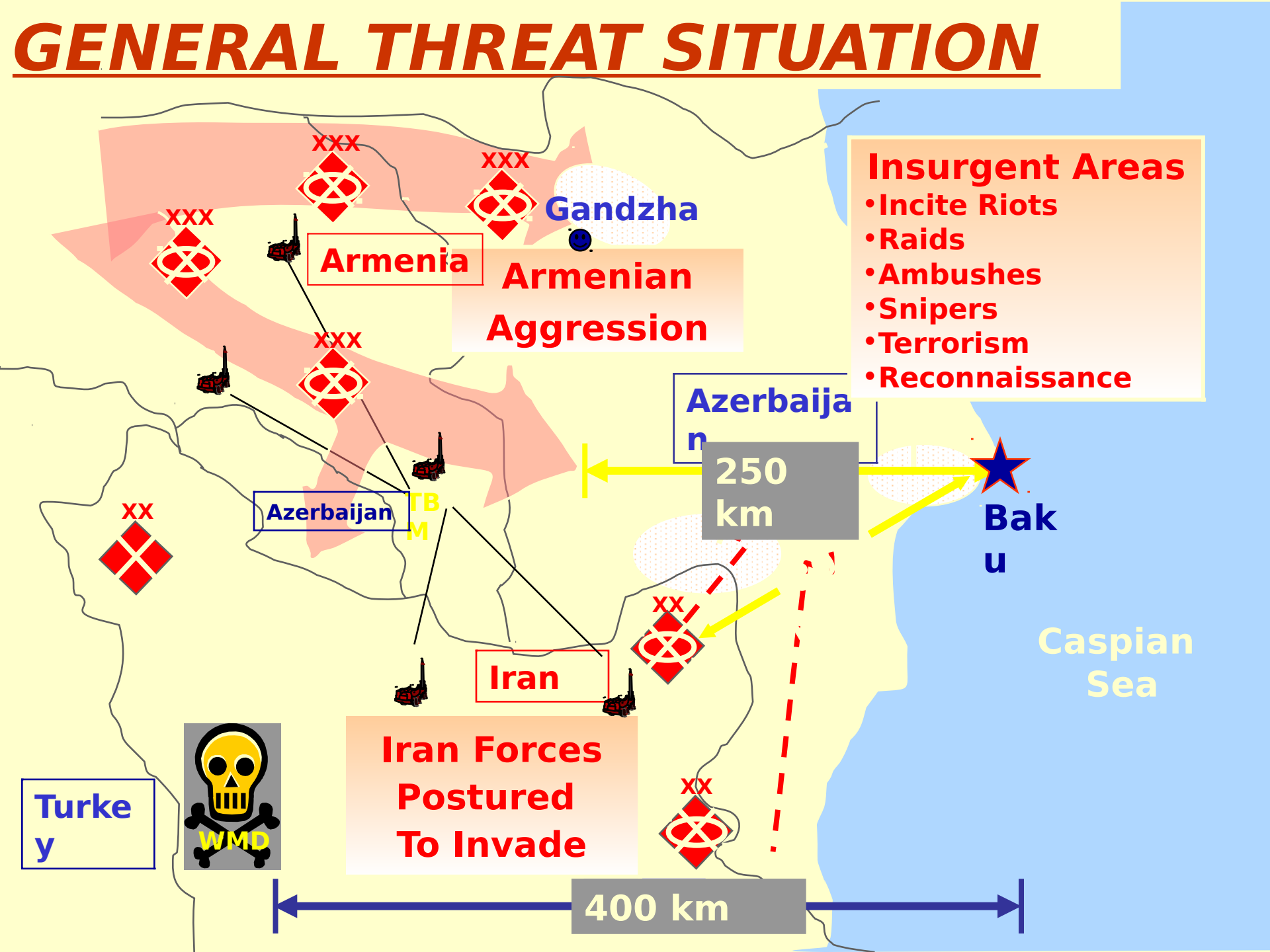
Non-state Actors:

- Drug-trade cartels
- International terrorist groups
- International corporate business
- Religious groups
- Nomadic non-aligned groups

Illustrative Scenario (2010)

- Azerbaijan: Pro-Western President; Opposed by radical Islamic dissident faction supported by Iran
- Iran providing military support to Armenia to increase pressure on Azerbaijani government
- Armenia invades Azerbaijan to regain lost territory
- Islamic dissident faction demands resignation of Azerbaijani president
- Iran positions substantial military forces along the Azerbaijani border; postured towards Baku
- Russia proposes a joint US / Russian operation to halt Armenian aggression, restore previous border, and deter Iranian intervention in the crisis

GENERAL THREAT SITUATION



Power Projection / Time

Task / Purpose: Rapidly deploy land forces into AOR to respond to crisis in order to:

- Show US resolve with immediate credible presence on the ground
- Stabilize Azerbaijan government
- Secure population, oil fields and entry points for follow-on forces
- Establish Coalition Task Force
- Support CINC strategy to deter Iranian aggression

Environmental Complications

CIS

ELEVATIONS AVG 5K' msl

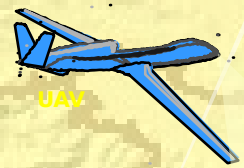
PEAKS EXCEED 13K' msl

CEILINGS ROUTINELY UNDER 2K' agl

Georgia

FOG & SNOW
DROP VIS UNDER 3.2Km

DIFFICULTY IN
BELIGERENT ID



TERRAIN MASKING IN MTNS

Gandz
a

Azerbaijan

MASKING IN
BUILT UP AREAS

Bak
u

Armenia

TURKEY

TEMPS UNDER 32 DEG f THE NORM

Terrain & Wx degrade Tech Collection

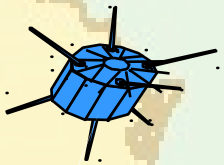
IRAN

FROZEN PRECIP 7-8 DAYS/MO

MOD/SEVERE ICING
FREQUENT

MOD/SEVERE TURBULANCE
COMMON NEAR HILLS/MTNS

Thinking Adaptive Opponent



CIS

Puts premium on "troops in contact"

Georgia

Hugs the environment

Proficient at deception

Armenia

Azerbaijan

Bak
u

TURKEY

Leverages technology

Understands importance of ISR

IRAN

Engage & force reaction if required

Anti-Access Strategy

Threaten Nations for Allowing Access

Anti-Access Objective

Deny Objective Force Entry at Airfields and Sea Ports

Direct Action Against Facilities

CIS

Georgia

TURKEY

Armenia

Azerbaijan

Baku

Port

SPF

UAV

S-300

MANPAD

oday's fixed base dependent ovepipe technical ISR system insufficient

n Information on Deploying Forces

Target and Disrupt Flow

Engage and Destroy Facilities

Missiles & Long Range Fires on Airfields and Ports

IRAN

Legend

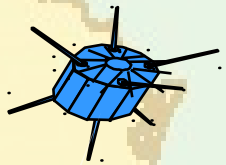
Missile Arc

Insurge nt

SAM Coverag

Flexible Multidisciplined ISR System Needed

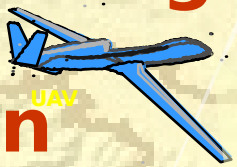
CIS



Determined Opponent

Georgia

Hugs the environment



UAV

Proficient at deception

Azerbaijan

Armenia

Complex Terrain

Baku

Adverse Weather

SPF

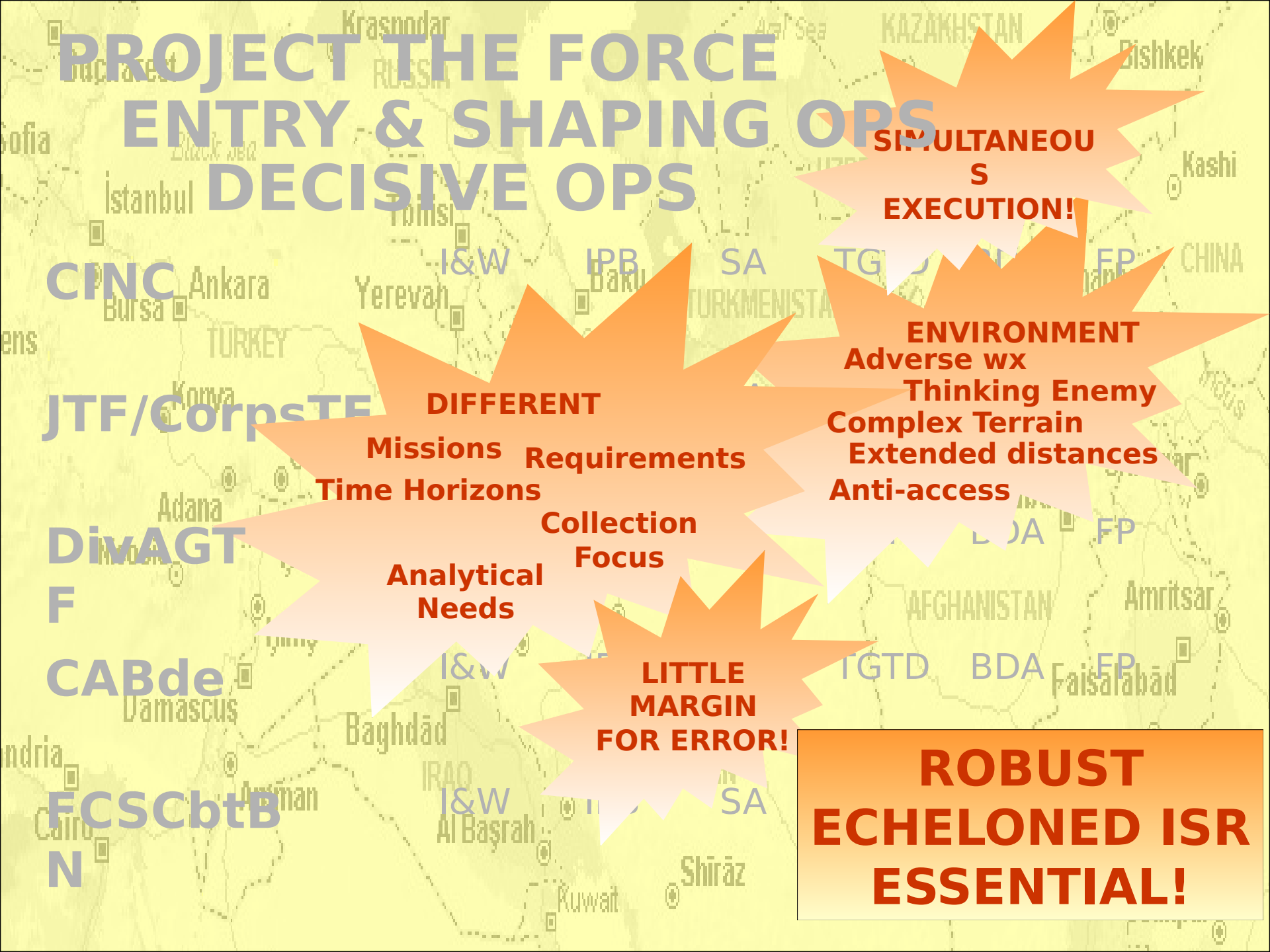
TURKEY

Cuts deception risk

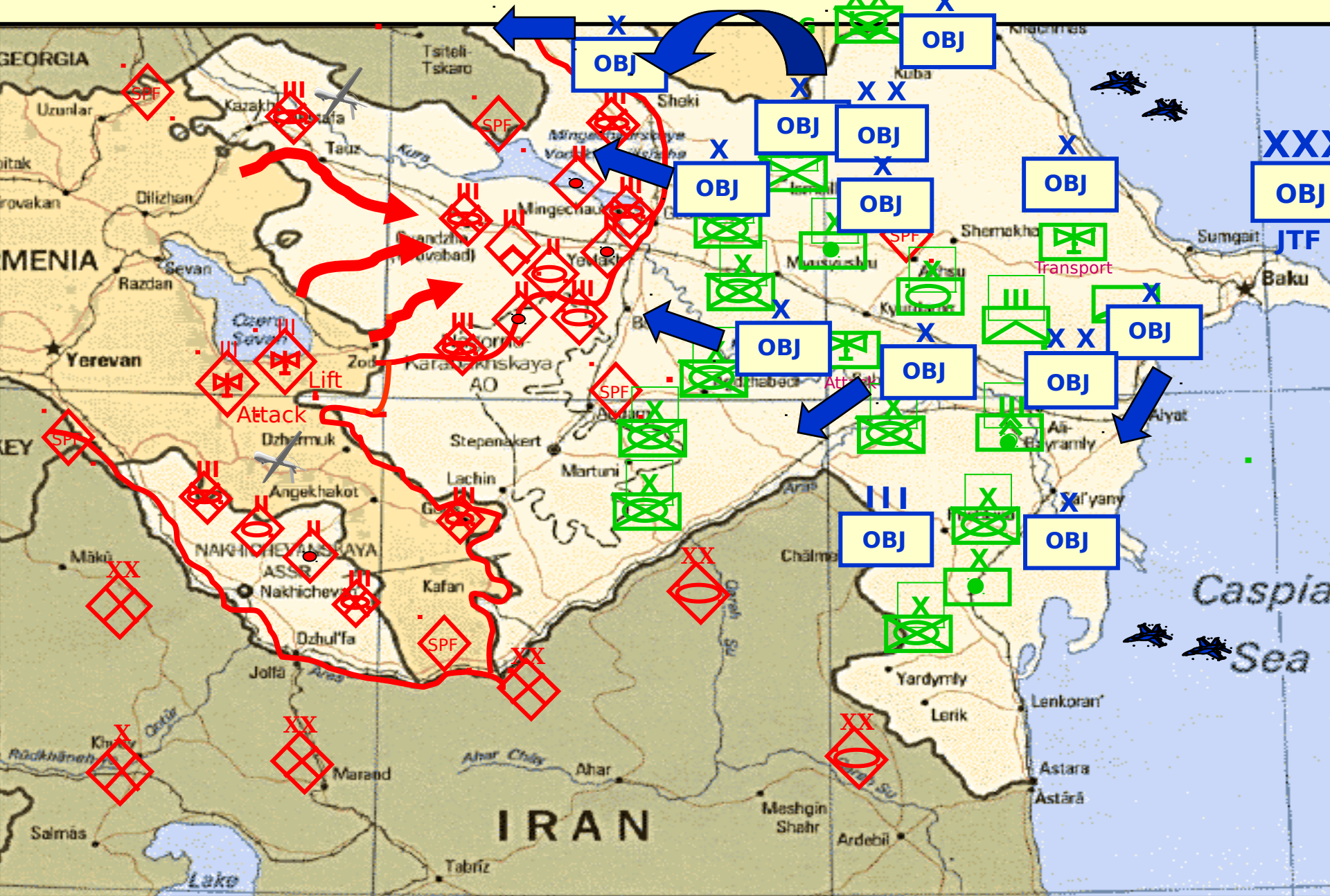
Offsets weather effects

IRAN

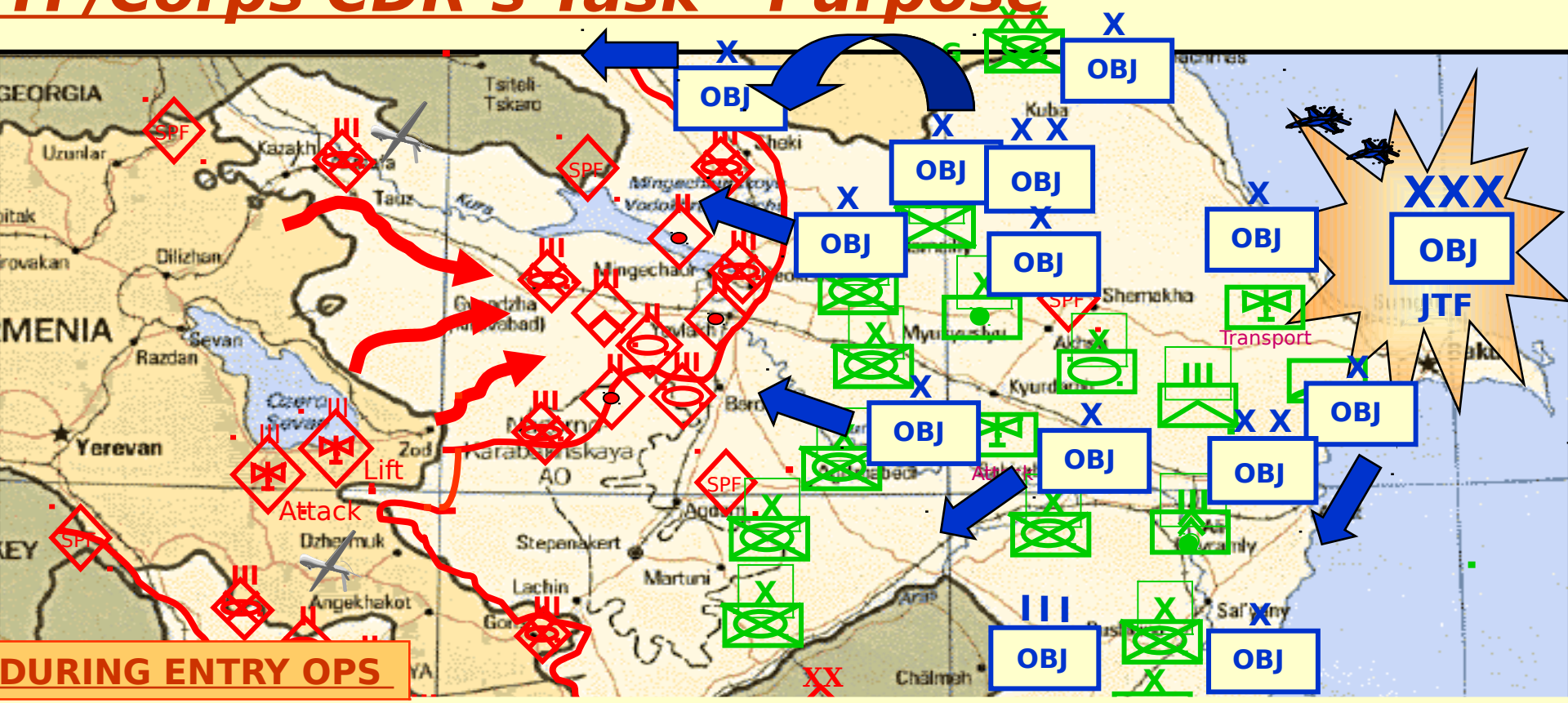
Reduces terrain impact


PROJECT THE FORCE
ENTRY & SHAPING OPS
DECISIVE OPS
CINC
JTF/CorpsTF
DivAGT
F
CABde
FCSCbtB
N
SIMULTANEOUS EXECUTION!
ENVIRONMENT
Adverse wx
Thinking Enemy
Complex Terrain
Extended distances
Anti-access
DIFFERENT
Missions
Requirements
Time Horizons
Collection Focus
Analytical Needs
LITTLE MARGIN FOR ERROR!
ROBUST ECHELONED ISR ESSENTIAL!
I&W
IPB
SA
FP
BDA
TGTD
Krasnodar
Istanbul
Ankara
Bursa
Yerevan
Baku
TURKEY
TURKMENISTAN
KAZAKHSTAN
Bishkek
Kashi
CHINA
Adana
Damascus
Baghdad
IRAQ
Amman
Al Basrah
Kuwait
Shīrāz
AFGHANISTAN
Amritsar
Faisalabad

Armenia Attacks Azerbaijan - Coalition Respond



TF/Corps CDR's Task - Purpose



DURING ENTRY OPS

Corps deploys, supports joint shaping actions, and conducts operations in AOR EAGLE to

- **Isolate belligerents**
- **Preserve the regime**
- **Build coalition resolve**
- **Establish Internal defense requirements with friendly factions**

Corps/JTF CDR's ISR Requirements during Entry Operations

OP FOCUS - isolate belligerents, preserve regime, estab conditions for future ops

ISR Supports CDR's Requirement for

- ✓ IPB
- ✓ I&W
- ✓ Situation Assessm
- ✓ Target Development
- ✓ BDA
- ✓ Force Protection

Intelligence Prep of the Battlefield

- Az ports & airfields, incl undev
- Digital mapping products
- Ar, Iz & Az OB, incl paramil & factions
- LOC's - primary&secondary road &rail
- Cross country mob - FCS,MBT, TEL, CSS
- Ethnic and religious breakdown
- Political affiliations/sensitivities - National & Re

Indications & Warnings

- Threat from Iz forces
- SPF & Terrorist threat
- Change in political alliances impacting the operation
- TBM alert

Target Development

- SPF and regular forces threatening APOD/SPOD
- Ar & allied elements enforcing exclusion zone
- Threats in US homeland

Situation Assessment

- Current mil situation in Az
- Status of Ru deployment & force posture
- Iz force status

Force Protection

- Enroute obstacles & mine data
- Environmental Hazards- disease & man made
- SPF targets and TTP
- Population sympathies
- Weather enroute and in AOR - air, ground & maritime ops

Battle Damage Assessment

- Anti-access targets
- Ar, Iz, Az air & naval

Corps/JTF tracks maneuver/FS brigades &_ SRF btrys; air sqns & maritime combatants

TF/Corps CDR's Task - Purpose

- Corps conducts security operations to guard the southern flank with Iran and provide early warning

- Corps conducts isr operations to support Joint attacks on TBM launch sites

Corps conducts simultaneous stability operations and attacks

- to defeat opposing forces and restore the international borders
- Stabilise the situation in BAKU
- Support continued

Corps/JTF CDR's ISR Requirements during Shaping Operations

OP FOCUS - security ops to guard S flank & isr opns to spt Joint atks on TBM launch sites

ISR Supports CDR's Requirement for

- ✓ IPB
- ✓ I&W
- ✓ Situation Assessm
- ✓ Target Development
- ✓ BDA
- ✓ Force Protection

Intelligence Prep of the Battlefield

- Ar Iz & Ar ports & airfields
- Ar/Iz SRF -
- Ar, Iz & Az OB, incl paramil & factions
- LOC's - primary&secondary road &rail
- AA & MC to spt Ir movement into Az
- Cross country mob - FCS,MBT, TEL, CSS
- Ethnic and religious breakdown
- Political affiliations/sensitivities - National & Regional

Indications & Warnings

- Threat from Iz forces
- SPF & Terrorist threat
- Change in political alliances impacting the operation
- TBM alert

Target Development

- SPF and regular forces threatening APOD/SPOD
- Ar & allied elements enforcing exclusion zone
- Threats in US homeland
- IO targets

Situation Assessment

- Current mil situation in Az
- Status of Ru deployment & force posture
- Status of Iz forces
- Civil situation in Az; reaction to coalition ops

- Anti-access targets
- Ar, Iz, Az air & naval
- Effects of IO

Force Protection

- Enroute obstacles & mine data
- Environmental Hazards- disease & man made
- SPF targets and TTP
- Population sympathies
- Current & future weather across the AI - air ground &

Corps/JTF tracks maneuver/FS brigades &_ SRF btrys; air sqns & maritime combatants; SPF_

Corps/JTF CDR's ISR Requirements during Decisive Operations

OP FOCUS - defeat opposing forces & restore boundaries, stabilize situation in BAKU & spt coalition resolve

ISR Supports CDR's Requirement for

- ✓ IPB
- ✓ I&W
- ✓ Situation Assessm
- ✓ Target Development
- ✓ BDA
- ✓ Force Protection

Intelligence Prep of the Battlefield

- Az ports & airfields, incl undev
- Ar, Iz & Az ground air & naval OB, incl paramil & factions
- LOC's - primary&secondary road &rail
- Air transit routes in zone, incl enroute hazards
- Cross country mob - FCS, MBT, TEL, CSS
- Details - urban areas in zone

Indications & Warnings

- Threat from Iz forces
- SPF & Terrorist threat
- Change in political alliances impacting the operation
- TBM alert

Target Development

- Track Ar & Ir heavy forces Air and Naval Combatants
- Ar/Iz aid defenses & SRF
- Ar/Iz SRF

Battle Damage Assessment

- Ph 1 & 2 BDA - strikes in Corps AO
- Effects of ongoing IO
- Ar/Iz SPF _

Situation Assessment

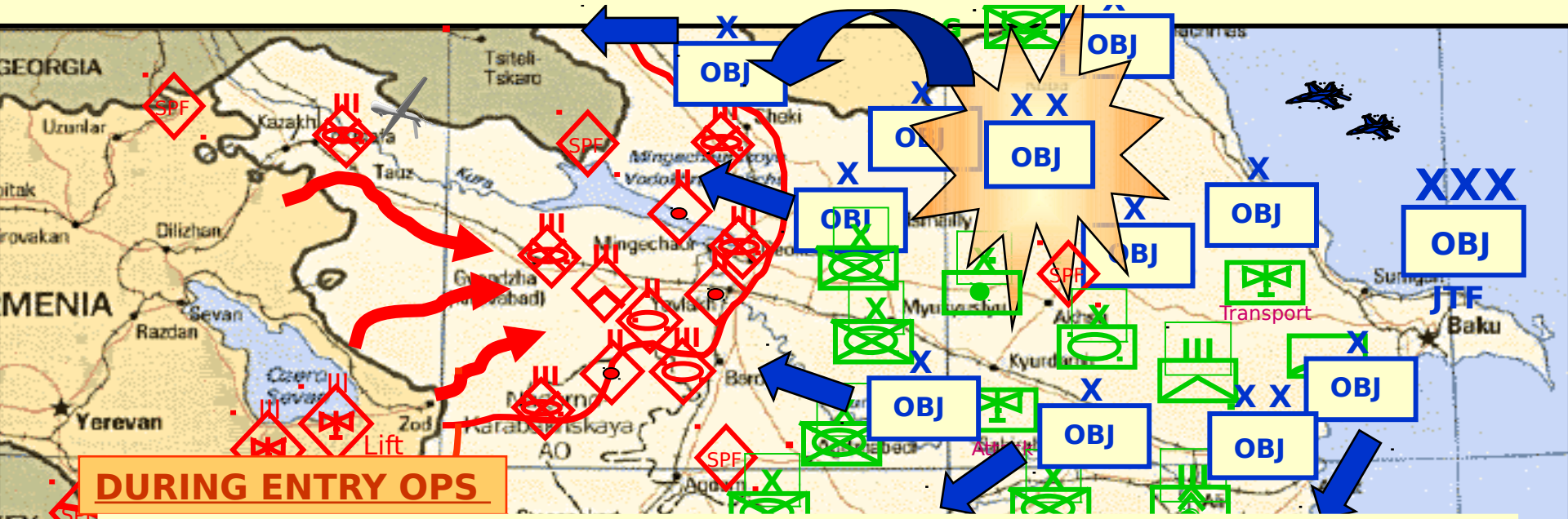
- Strength location intentions of Ar & Iz ground, air & maritime forces
- Status & loc Ar/Iz air defenses & SRF
- Az regular or paramil opposing govt/coalition
- Changes in political situation

Force Protection

- Ar/Iz SPF & paramil activities and plans
- disease and other environmental threats
- Current and future weather across the AI - air ground & maritime ops

Corps/JTF tracks maneuver/FS brigades &_ SRF btrys; air sqns & maritime combatants; SPF; IO/NGO; Civil incid'_

vision Air-Ground TF CDR's Task - Purpose



DURING ENTRY OPS

DAGTF deploys to forward airfields, defeats defending forces and attacks to

- **Defeat Armenian forces in ZONE**
- **Sustain coalition resolve**
- **Preserve the regime**
- **Build coalition resolve**
- **Establish Internal defense requirements with friendly factions**
- **Set conditions for future operations**

Division Air-Ground TF CDR's ISR Requirements during Entry Operation

OP FOCUS - deploys to fwd airfields, defeats defending forces & attacks

ISR Supports CDR's Requirement for

- ✓ IPB
- ✓ I&W
- ✓ Situation Assessm
- ✓ Target Development
- ✓ BDA
- ✓ Force Protection

Intelligence Prep of the Battlefield

- Forward airfields in Div zone
- Digital mapping products
- Ar & Az OB, incl paramil & factions
- LOC's - primary&secondary road &rail
- Cross country mob - FCS,MBT, TEL, CSS
- Ethnic and religious breakdown
- Political affiliations/sensitivities - National & Regional

Indications & Warnings

- Threat from Ar heavy forces
- SPF & Terrorist threat
- Change in political alliances impacting the operation
- TBM alert
- SPF and regular forces threatening APOD in zone
- Ar heavy forces & strike assets in zone

Situation Assessment

- Current mil situation in Div AI
- Status of Ru deployment & force posture
- Civil situation in Div zone

Force Protection

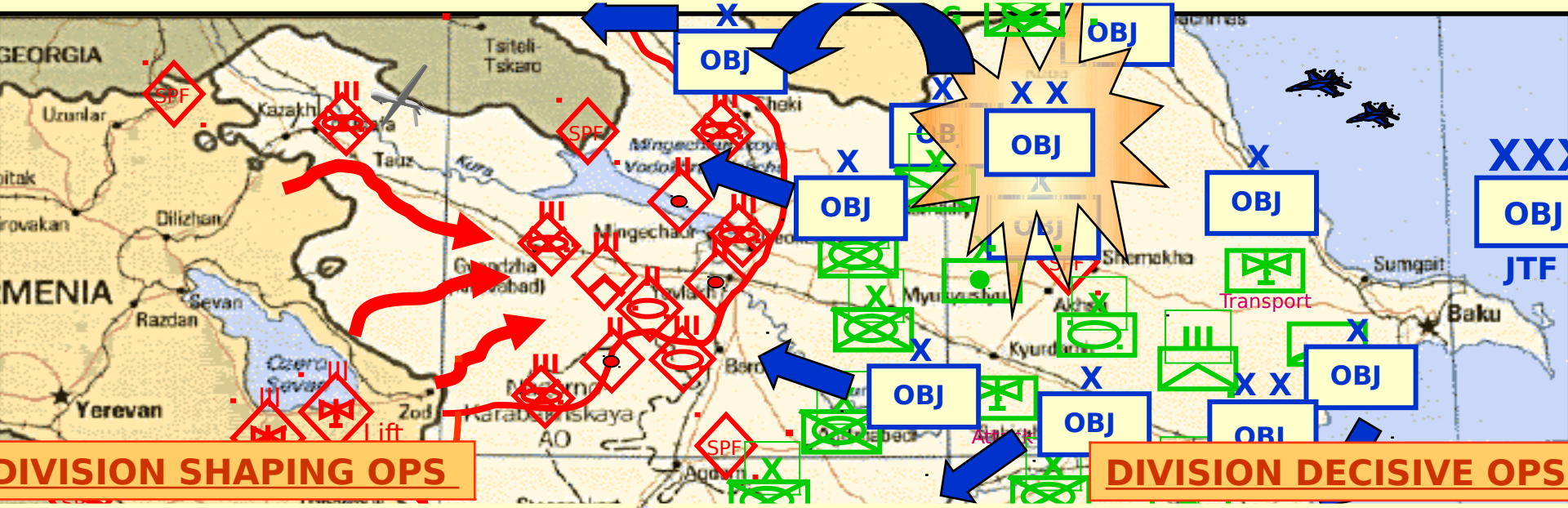
- Enroute obstacles & mine data
- Environmental Hazards- disease & man made
- SPF targets and TTP
- Population sympathies
- Weather enroute and in AOR - air & ground ops

Battle Damage Assessment

- Ar heavy forces
- Strike assets

Div AGTF tracks maneuver/FS bns &_ SRF btrys; SPF

vision Air-Ground TF CDR's Task - Purpose



Division secures the Corps right flank, establishes and maintains contact with 1st GD AbnD (RU)

Division conducts simultaneous deep operations to locate and destroy strike assets

Division attacks to

- **defeat defending Armenian forces in zone**
- **stabilize the situation in the area north of the Mingechevir reservoir to the international boundary with the Russian Federation**
- **Support continued coalition resolve**

Division Air-Ground TF CDR's ISR Requirements during Shaping Operat

FOCUS - secures Corps right flank, estab contact with Ru 1GAB, conducts simultaneous deep ops a/g strike assets & mobile reserves

ISR Supports CDR's Requirement for

- ✓ IPB
- ✓ I&W
- ✓ Situation Assessm
- ✓ Target Development
- ✓ BDA
- ✓ Force Protection

Intelligence Prep of the Battlefield

- Details - Northern flank of Div zone
- Sheki and other towns in div zone
- Ar & Az OB, incl paramil & factions
- LOC's - primary&secondary road &rail
- AA & MC sptg Ar force movement
- Cross country mob in zone - FCS,MBT, TEL, CSS
- Ethnic and religious breakdown
- Regional political affiliations/sensitivities

Indications & Warnings

- Threat from Ar heavy forces
- SPF & Terrorist threat in zone
- Change in political alliances impacting the Div operation
- TBM alert
- SPF and regular forces threatening APOD in zone
- Ar & allied elements enforcing exclusion zone
- IO targets

Force Protection

- Enroute obstacles & mine data
- Environmental Hazards- disease & man made
- SPF targets and TTP
- Population sympathies
- Current & future weather across the Div AI - air & ground ops

Situation Assessment

- Current mil situation in zone
- Status of Ru deployment & force posture
- Civil situation in area N of Mingechevi; reaction to coalition ops

Battle Damage Assessment

- Ar heavy forces & strike assets
- Effects of Div IO
- TBM's in zone

Div AGTF tracks maneuver/FS bns & SRF btrys; SPF

Division Air-Ground TF CDR's ISR Requirements during Decisive Operat

FOCUS - defeat Ar forces in zone, stabilize situation North of reservoir, support coalition resolve, estab conditions for future ops

ISR Supports CDR's Requirement for

- ✓ IPB
- ✓ I&W
- ✓ Situation Assessm
- ✓ Target Development
- ✓ BDA
- ✓ Force Protection

Intelligence Prep of the Battlefield

- Details - Northern flank of Div zone
- Sheki and other towns in div zone
- Ar & Az OB, incl paramil & factions
- LOC's - primary&secondary road &rail
- AA & MC sptg Ar force movement
- Cross country mob in zone - FCS,MBT, TEL, CSS
- Ethnic and religious breakdown
- Regional political affiliations/sensitivities

Indications & Warnings

- Threat from Ar heavy forces
- SPF & Terrorist threat in zone
- Change in political alliances impacting the

Target Development

- SPF and regular forces threatening APOD in zone
- Ar & allied elements enforcing exclusion zone
- IO targets

Situation Assessment

- Current mil situation in zone
- Status of Ru deployment & force posture
- Civil situation in area N of Mingechevi; reaction to coalition ops

Battle Damage Assessment

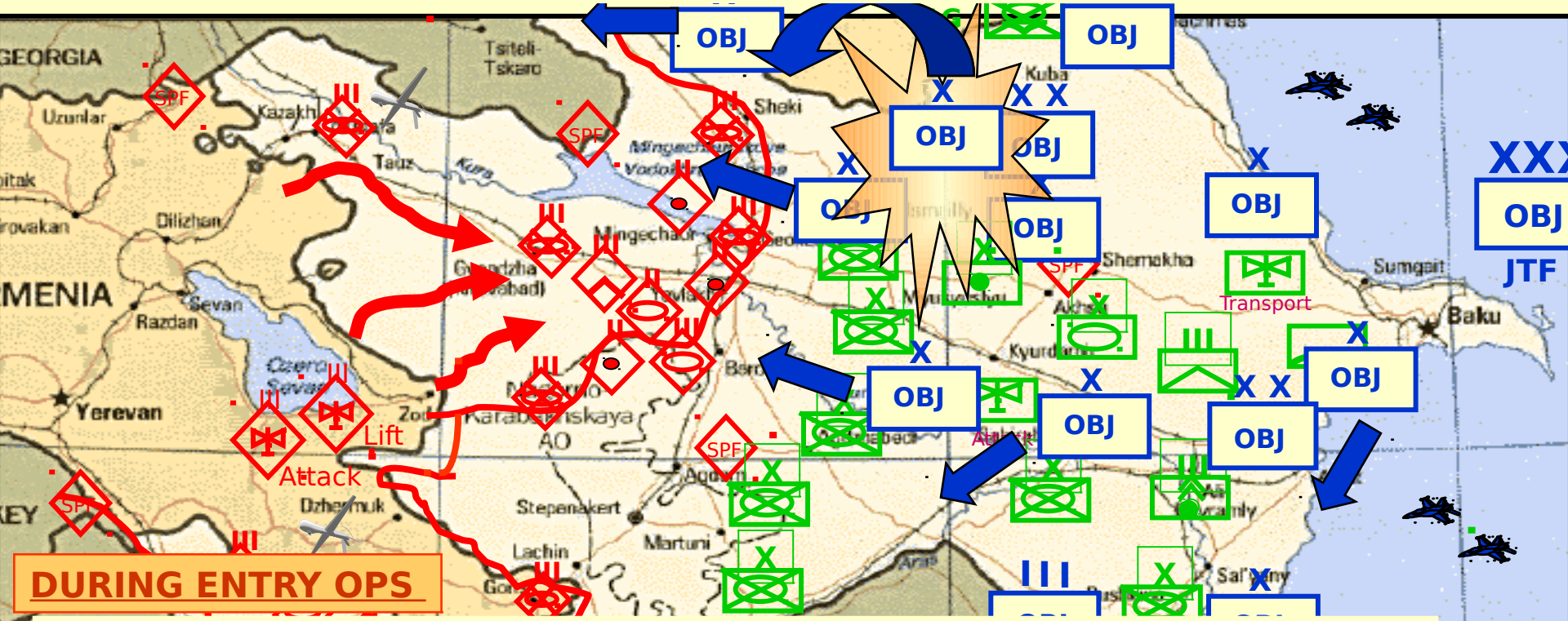
- Ar heavy forces & strike assets
- Effects of Div IO
- TBM's in zone

Force Protection

- Ar/Iz SPF & paramil activities and plans
- disease and other environmental threats
- Current and future weather across the AI - air ground & maritime ops

Div AGTF tracks maneuver/FS bns &_ SRF btrys; SPF

mbined Arms Brigade CDR's Task - Purpose



Combined Arms Brigade deploys to forward airfield vic SHEKI and

- **Defeats defending Armenian forces**
- **Secures the airfield**
- **Establishes internal defense requirements with friendly factions**
- **Prepares for follow-on operations**

Combined Arms Brigade CDR's ISR Requirements during Entry Operatio

FOCUS - deploy to & secure fwd airfield v SHEKI, defeats defending forces, estab internal defense rqts, prepares for follow-on

ISR Supports CDR's Requirement for

- ✓ IPB
- ✓ I&W
- ✓ Situation Assessm
- ✓ Target Development
- ✓ BDA
- ✓ Force Protection

Intelligence Prep of the Battlefield

- Details – terrain and en situation v SHEKI; incl airfield and environs, detailed city plans
- Alternate airfields avail to spt insertion
- Ar & Az OB, incl paramil & factions
- LOC's - primary&secondary road &rail in
- Ethnic and religious breakdown
- Regional political affiliations/sensitivities

Protection

- oute obstacles & mine data
- ronmental Hazards- disease & man e
- targets and TTP
- ulation sympathies
- ther enroute and in AOR - air, nd & maritime ops

Situation Assessment

- Current mil situation in SHEKI; details of airfield defensive posture
- Ar air defense status in zone
- Status of Ru deployment & force posture
- Civil situation v SHEKI district

Target Development

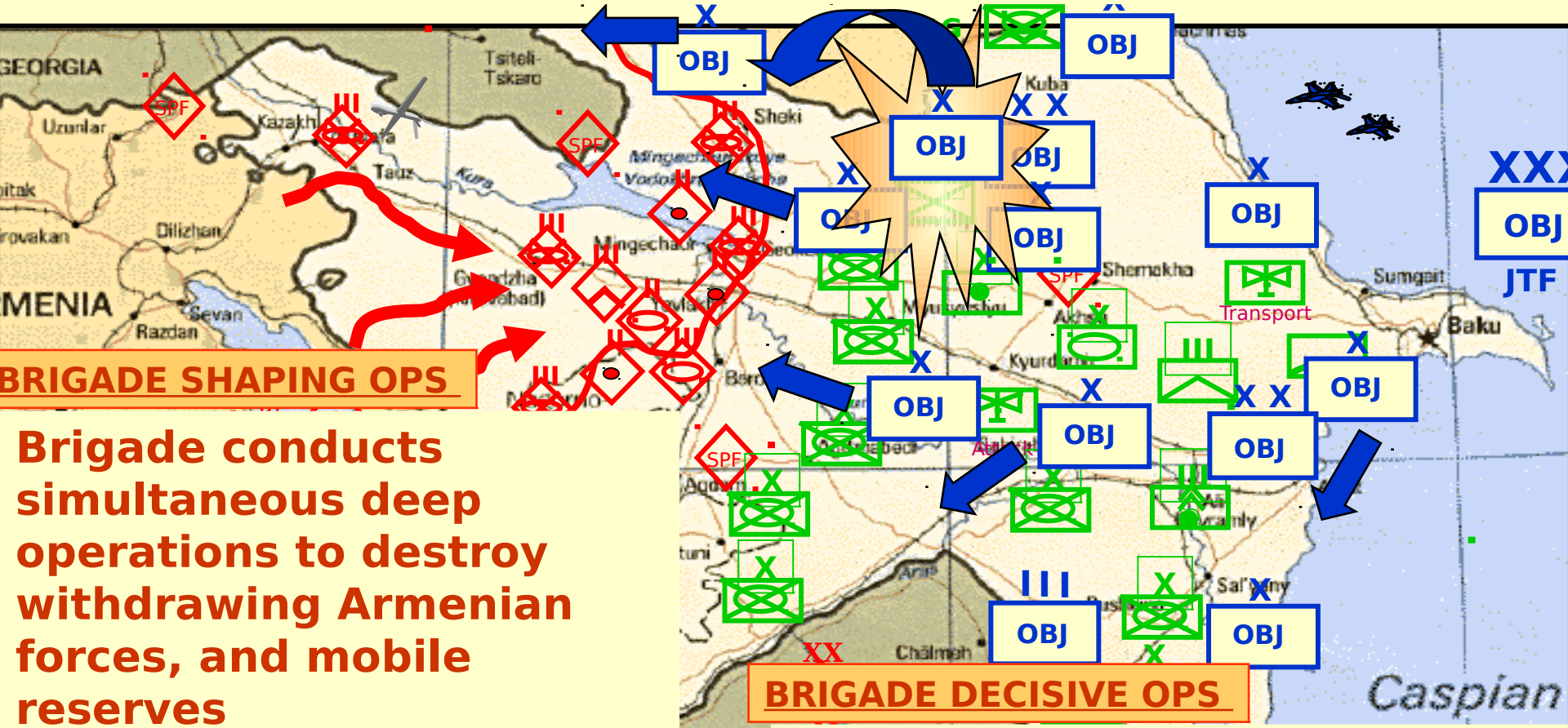
- Defenses v SHEKI airfield
- Ar heavy forces & mob reserves in zone
- Recon-strike/fires assets in zone

Battle Damage Assessment

- Insertion airfield defenses
- Air defenses opposing
- Ar SPF in Bde AI
- Ar heavy forces & mobile reserves
- Recon-strike/fires assets in zone

CA BDE tracks maneuver/FS plts &_ SRF btrys; SPF

mbined Arms Brigade CDR's Task - Purpose



Brigade conducts simultaneous deep operations to destroy withdrawing Armenian forces, and mobile reserves

Brigade screens the Division's right flank, establishes and maintains contact with 1GD AbnD (RU)

Brigade attacks to defeat Armenian forces defending the forward airfield at SHEKI, and secures the airfield for follow-on echelons, continues the attack to destroy remaining

Combined Arms Brigade CDR's ISR Requirements during Shaping Opera

FOCUS - deep ops to destroy Ar forces and mobile reserves, screen Div rt flank, estab & maintain contact with

ISR Supports CDR's Requirement for

- ✓ IPB
- ✓ I&W
- ✓ Situation Assessm
- ✓ Target Development
- ✓ BDA
- ✓ Force Protection

Intelligence Prep of the Battlefield

- Details – terrain and en situation in Border region N of SHEKI-GAKH-ZAGSTALA
- City plans GAKH & ZAGSTALA
- Alternate airfields avail to spt subsequent insertions
- Ar & Az OB, incl paramil & factions
- LOC's - primary&secondary road &rail in zone

Force Protection

- Air & ground obstacles & mine data in zone
- Environmental Hazards- disease & man made
- SPF targets and TTP
- Population sympathies in zone
- Weather across Bde zone – air & ground,

Target Development

- Ar air defenses in zone
- Ar heavy forces & mob reserves in zone
- Recon-strike/fires assets in zone
- Ar SPF in Bde zone

Battle Damage Assessment

- Insertion airfield defenses
- Air defenses opposing
- Ar SPF in Bde zone
- Ar heavy forces & mobile reserves
- Recon-strike/fires assets in zone

Situation Assessment

- Current mil situation in SHEKI-GAKH-ZAGSTALA and in border region north of those cities
- Airfield defensive posture in zone
- Ar air defense status in zone
- Status of Ru deployment & force posture
- Civil situation v SHEKI district

CA BDE tracks maneuver/FS plts &_ SRF btrys; SPF

Combined Arms Brigade CDR's ISR Requirements during Decisive Oper

FOCUS - atks to defeat Ar forces defending airfield at SHEKI; secures airfield for follow on forces; continues the atk to destroy remaining Ar forces in zone.

ISR Supports CDR's Requirement for

- ✓ IPB
- ✓ I&W
- ✓ Situation Assessm
- ✓ Target Development
- ✓ BDA
- ✓ Force Protection

Intelligence Prep of the Battlefield

- Details – terrain and en situation v SHEKI; incl airfield and environs, detailed city plans
- Terrain & en along Line SHEKI-GAKH-ZAGATA
- Alternate airfields avail to spt follow-on ops
- Ar & Az OB, incl paramil & factions
- LOC's - primary&secondary road &rail in zon
- Ethnic and religious breakdown in zone
- Regional political affiliations/sensitivities in

Force Protection

- Air & ground obstacles & mine data in zone
- Environmental Hazards- disease & man made
- SPF targets and TTP
- Population sympathies in zone
- Weather across Bde zone – air & ground, out to 72 hrs

Situation Assessment

- Current mil situation in SHEKI; details of airfield defensive posture
- Mil sit in area vic GAKA-ZAGATALA
- Ar air defense status in zone
- Status of Ru deployment & force posture
- Civil situation v SHEKI district

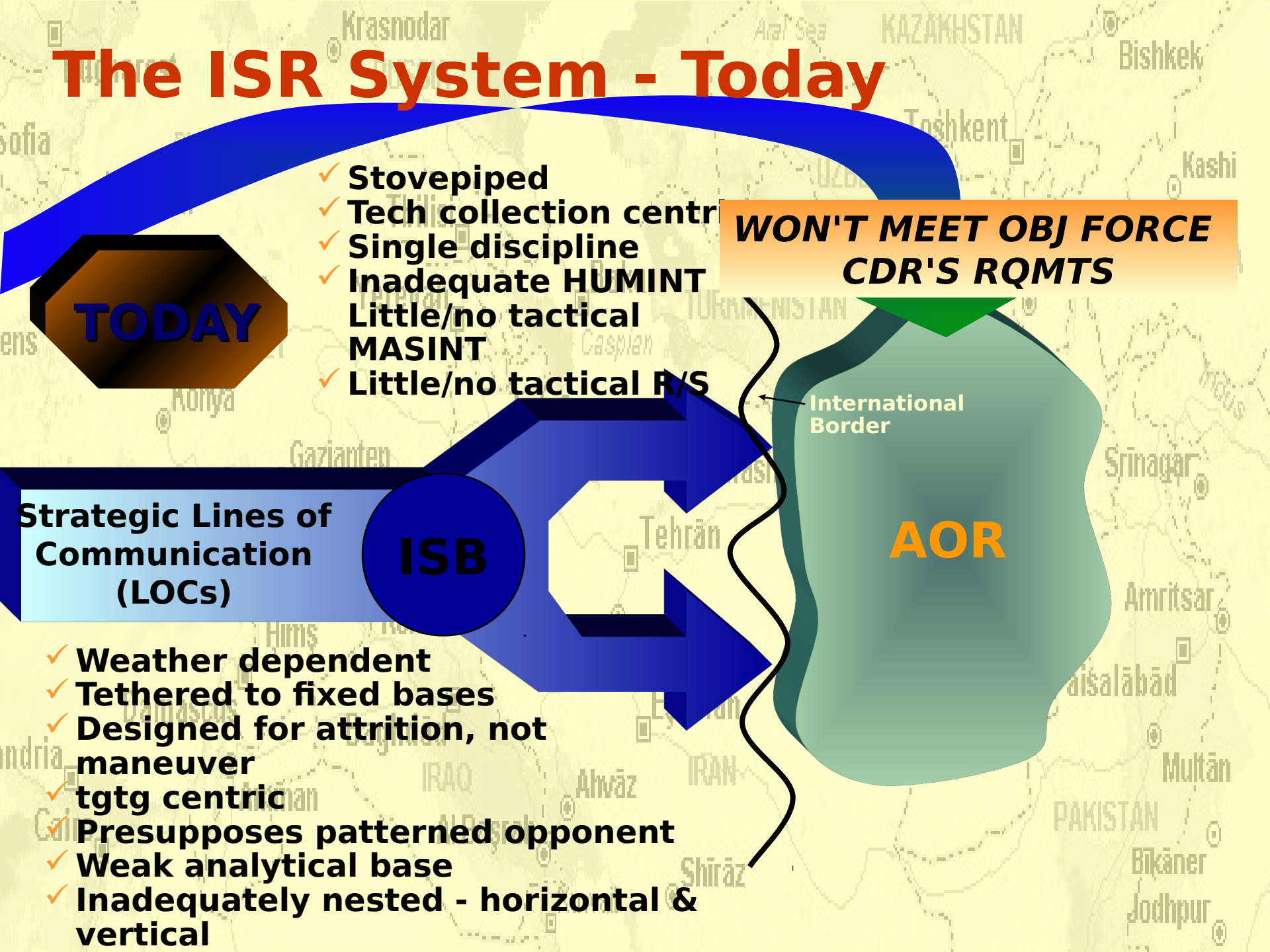
Battle Damage Assessment

- Insertion airfield defenses
- Air defenses opposing
- Ar SPF in Bde AI
- Ar heavy forces & mobile reserves
- Recon-strike/fires assets in zone

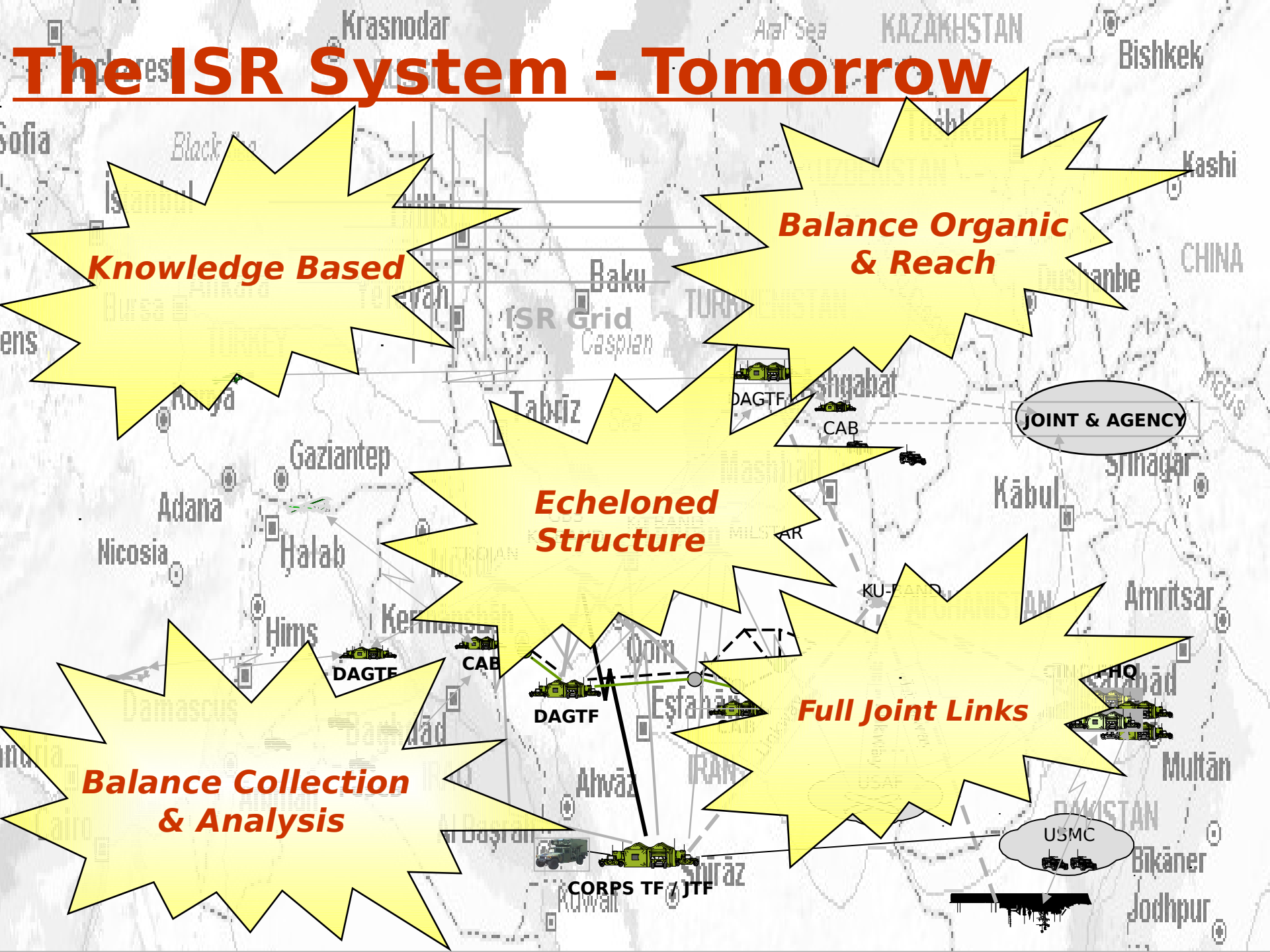
- Defenses v SHEKI airfield
- Ar heavy forces & mob reserves in zone
- Air defenses in zone
- Recon-strike/fires assets in zone

CA BDE tracks maneuver/FS plts &_ SRF btrys; SPF

The ISR System - Today



The ISR System - Tomorrow



The ISR System - Tomorrow

FULL JOINT LINKS

ESSENTIAL ISR SUPPORT FROM PEACETIME ENGAGEMENT THRU DECISIVE COMBAT OPS

SUPPORTS CINC & JTF CDR's NEED FOR ISR; ENSURES RQMT MET AT UE/U

LEVERAGES THEATER & NATIONAL EXPERTISE

CORPS TASK FORCE OPTIMIZED FOR JOINT ISR

LINKS DOWN TO BRIGADE COMBAT TEAM

FULL UP CONNECTIVITY WITH NATIONAL INTEL COMMUNITY

NRT & FULL DUPLEX OPERATIONS

JOINT COLLAB ENVIRONMENT

PROVIDES UNIQUE ARMY ISR CAPABILITIES TO JOINT FORCE

- **FUSION AND ANALYSIS**
- **ALL WX CLOSE COLLECTION - ALL DISCIPLINES**
- **TROOPS IN CONTACT**
- **COMPLEX TERRAIN**
- **DEAL W UNCOOP ADAPTIVE OPPONENT**

The ISR System - Tomorrow

KNOWLEDGE BASED

ADAPTIVE SOLUTIONS TO COMPLEX BATTLEFIELD CHALLENGES

AIM - APPLY ISR TO LEARN & ADAPT FASTER THAN 'ENEMY

ESSENTIAL ELEMENTS

COMMON INTERACTIVE SECURE DATA BASE

NEURAL NETWORKS

HUERISTIC DECISION SETS

SOPHISTICATED DATA MINING

COLLABORATIVE TOOLS

NESTED WITHIN JOINT & NATIONAL ISR GRID

ENABLES OBJECTIVE FORCE AS LEARNING ORGANIZATION

LESSONS LEARNED & APPLIED FORCE WIDE AT SPEED

EMPOWERS SYSTEMS THINKING ON COMPETITIVE BEHAVIOR

FOCUS INTEL ANALYSIS ON OPERATIONAL CHALLENGES

REDUCE DEMANDS ON HIGH VALUE HIGH RISK COLLECTORS

The ISR System - Tomorrow

ECHELONED STRUCTURE

RESOURCES APPLIED & FOCUSED AGAINST MISSION RQTS

FROM THEATER CINC TO FCS CBT BN

RECOGNIZES ORGANIZATIONAL MISSION AND FOCUS SHIFT -

JOINT - CORPS - DIV - BDE...

RANGE OF REQUIREMENTS FOR ISR AT EVERY LEVEL

NEED FOR ABSOLUTE FIDELITY AT UNIT OF ACTION

COMPLEX BATTLEFIELD REALITY - UNCOOP ENEMY, DECEPTION

INCREASED NEED FOR WARNING/STAND-OFF

SIMULTANEOUS SHAPING & DECISIVE OPS

UNPARALLELED WIDTH & BREADTH OF OPNL AREA

GROWTH IN COMPLEX URBAN ENVIRONMENTS

The ISR System - Tomorrow

BALANCE ORGANIC & REACH

ORGANIC ISR PROVIDES

- **IMMEDIATE FOCUS ON CDR's RQMTS**
- **ASSURED SPT UNDER ALL CIRCUMSTANCES**
- **PROMPT ANSWERS WHEN REQUIRED**

MUST HAVE BOTH - BALANCE IS ESSENTIAL

EMBEDDED REACH ISR CAPABILITY SUPPORTS

- **INFORMED DEPLOYMENT**
- **REDUCED FOOTPRINT**
- **ACCESS TO NATIONAL & JOINT EXPERTISE**
- **IMPROVED ANALYSIS**
- **INFORMED DECISIONS AT EVERY LEVEL**

MISSION RISK IN REACH - COMMS & FOCUS; WILL ALWAYS BE THERE....

RISK IN REACH CAN BE REDUCED

- **FIRST CLASS LIASON FORWARD**
- **FOCUSED REQUIREMENTS**
- **SOLID COLLABORATIVE DIGITAL ENVIRONMENT**

LESSONS LEARNED - HAITI, BOSNIA, KOSOVO

The ISR System - Tomorrow

ENABLE & BALANCE COLLECTION & ANALYSIS

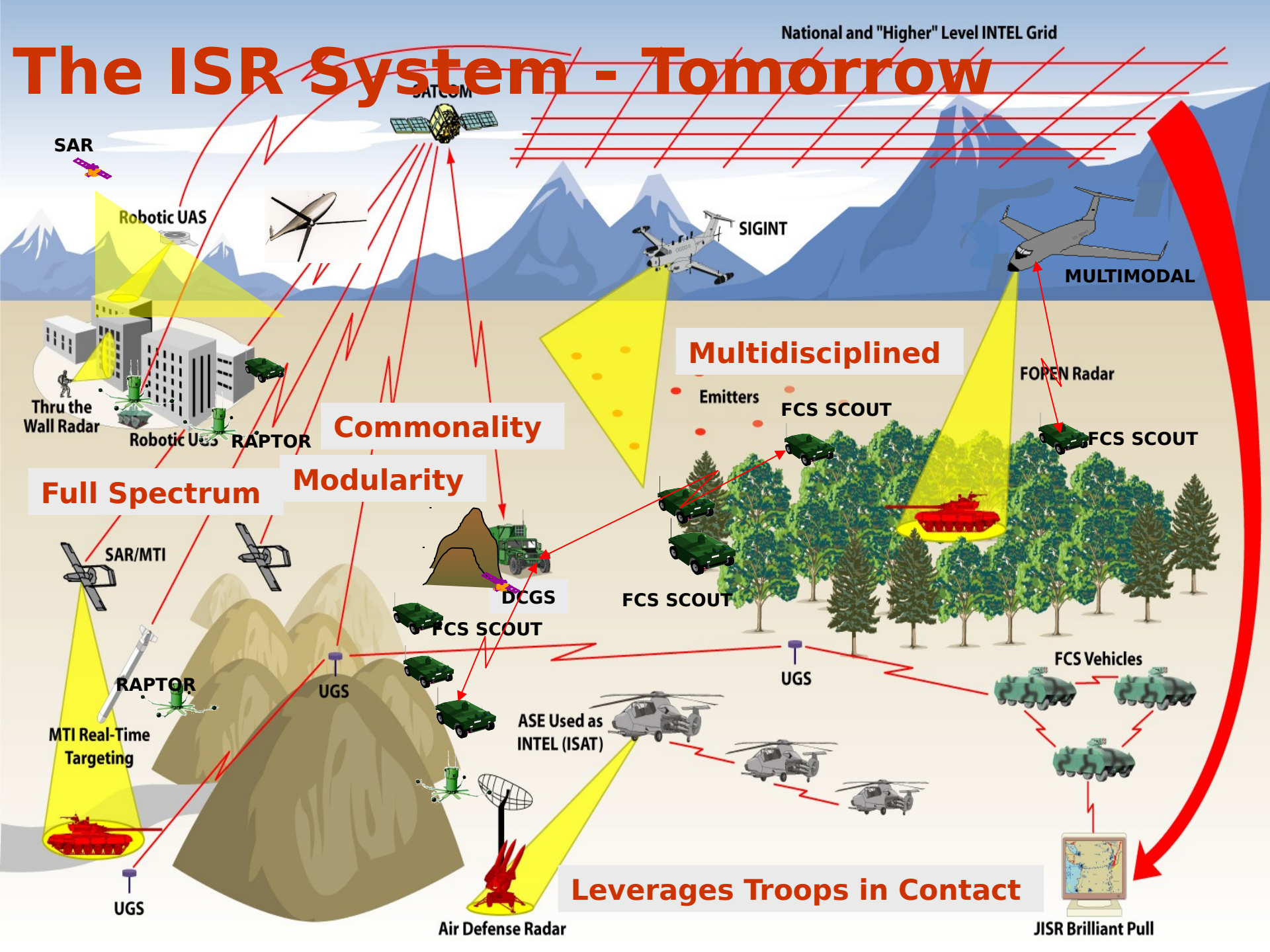
CURRENT STRUCTURE IS COLLECTION CENTRIC - ORIENTED ON PATTERNED OPPONENT

QUANTITY OF SENSOR INFORMATION WILL CHALLENGE OBJ FORCE

ADAPTIVE OPPOSITION WILL ALWAYS ATTEMPT TO DECEIVE

FULL SPECTRUM OPS TEST ANALYSIS MORE THAN COLLECTION

FIRST CLASS ANALYSIS KEY TO UNDERSTANDING, LEARNING, & ADAPTING TO FUTURE BATTLEFIELD REALITY


The ISR System - Tomorrow
National and "Higher" Level INTEL Grid
SATCOM
SAR
Robotic UAS
SIGINT
MULTIMODAL
Multidisciplined
Thru the Wall Radar
Robotic UGS
RAPTOR
Commonality
Modularity
Full Spectrum
Emitters
FCS SCOUT
FCS SCOUT
FCS SCOUT
FOPEN Radar
SAR/MTI
DCGS
FCS SCOUT
FCS SCOUT
UGS
UGS
RAPTOR
MTI Real-Time Targeting
ASE Used as INTEL (ISAT)
FCS Vehicles
UGS
Air Defense Radar
Leverages Troops in Contact
JISR Brilliant Pull

The ISR System - Tomorrow

COMMONALITY & MODULARITY

MODULAR ISR ORGANIZATIONS & SYSTEMS

OBJ FORCE ISR CHARACTERISTICS

- **OPEN ISR ARCHITECTURES**
- **COMMON HARDWARE & SOFTWARE**
- **COMMON CARRIERS & PLATFORMS**
- **COMMON JOINT STANDARDS APPLIED**

OPERATIONAL IMPACT

- **FACILITATES DEPLOYMENT PACKAGING**
- **SUPPORTS ISR MISSION TAILORING**
- **IMPROVED FULL SPECTRUM ISR CAPABILITY**
- **ACCOMODATES LOW DENSITY SPECIAL PURPOSE ISR SYSTEMS**
- **SUPPORTS "IN STRIDE" OP ISR UPGRADES**
- **ENHANCES ISR SUSTAINABILITY**
- **REDUCES UNIQUE ISR SIGNATURE & LOWERS OVERALL RISK**

The ISR System - Tomorrow

FULL SPECTRUM

HIGH INTENSITY COMBAT TO LOW INTENSITY SUPPORT OPS

NEW ISR PARADIGM - PREMIUM ON TRAINING FOR BOTH ENDS OF SPECTRUM

NEED FOR MODULAR ISR ORGANIZATIONS & SYSTEMS

OPTIMIZED FOR HIGH END CONTINGENCIES

SCALABLE & TAILORABLE

LINKS & PATTERNS

CRIMINAL INTELLIGENCE TOOLS

DIGITAL WORKING AIDES

ADJUSTABLE COLLECTION MIX

READILY ACCEPT AGENCY AND TECH COLLECT AUGMENTATION

The ISR System - Tomorrow

MULTIDISCIPLINE

BALANCE TECHNICAL & HUMAN SR

HUMINT, SIGINT, MASINT, IMINT

FROM OBJ CORPS TO BN

CLEARS FOG OF WAR

CUTS THROUGH CAMOFLAGE & WEATHER

COUNTERS TERRAIN OBSTACLES

OFFSETS ENEMY DECEPTION EFFORTS

PROVIDES OPTIMAL ISR SOLUTION AT EVERY LEVEL - BOTH COLLECTION & ANALYSIS

INCREASES PROBABILITY OF ANSWER NEEDED, IN TIME TO ACT

The ISR System - Tomorrow

TROOPS IN CONTACT LEVERAGED

MOUNTED & DISMOUNTED OPERATIONS

MOUNTED - OPTIMAL SPEED, REACH, DEPTH

DISMOUNTED - STEALTH, COMPEX TERRAIN, URBAN ENVIRONMENT

THE ULTIMATE IN RESPONSIVE PRECISION SR

OVERT AND/OR COVERT

ALL WEATHER CONDITIONS

ALL TERRAIN TYPES

MULTIDISCIPLINED COLLECTION

SECURE LONG RANGE COMMS STANDARD KIT

DIGITAL TOOLS AND HAND HELD SENSORS MULTIPLY EFFECTS

INHERENT LINKS W SOF & TECH HUMINT

COUNTERS DECEPTION

FORCES THE OPPOSITION INTO THE OPEN WHEN REQUIRED

FIGHTS WHEN NECESSARY WITH ALL ARMS

The Objective Force ISR System -

Must Enable a Learning Knowledge Based Organization

OBSERVE

ANALYZE ADAPT

FASTER THAN 'OPPONENT

CDR

Intelligence Synthesis

XXX OBJ JTF

X OBJ

X X OBJ

Analysis

info

info

Data

Data

info

Data

Data

info

info

Recon

Surveil'

Broadcast

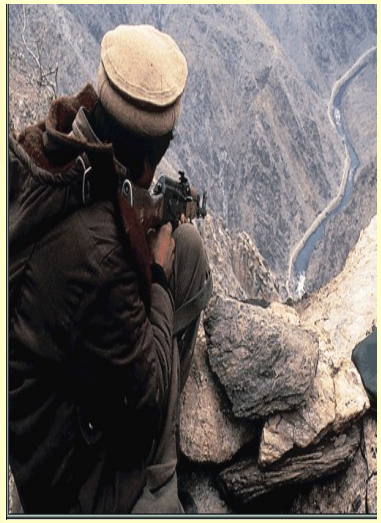
Joint

Theater

National

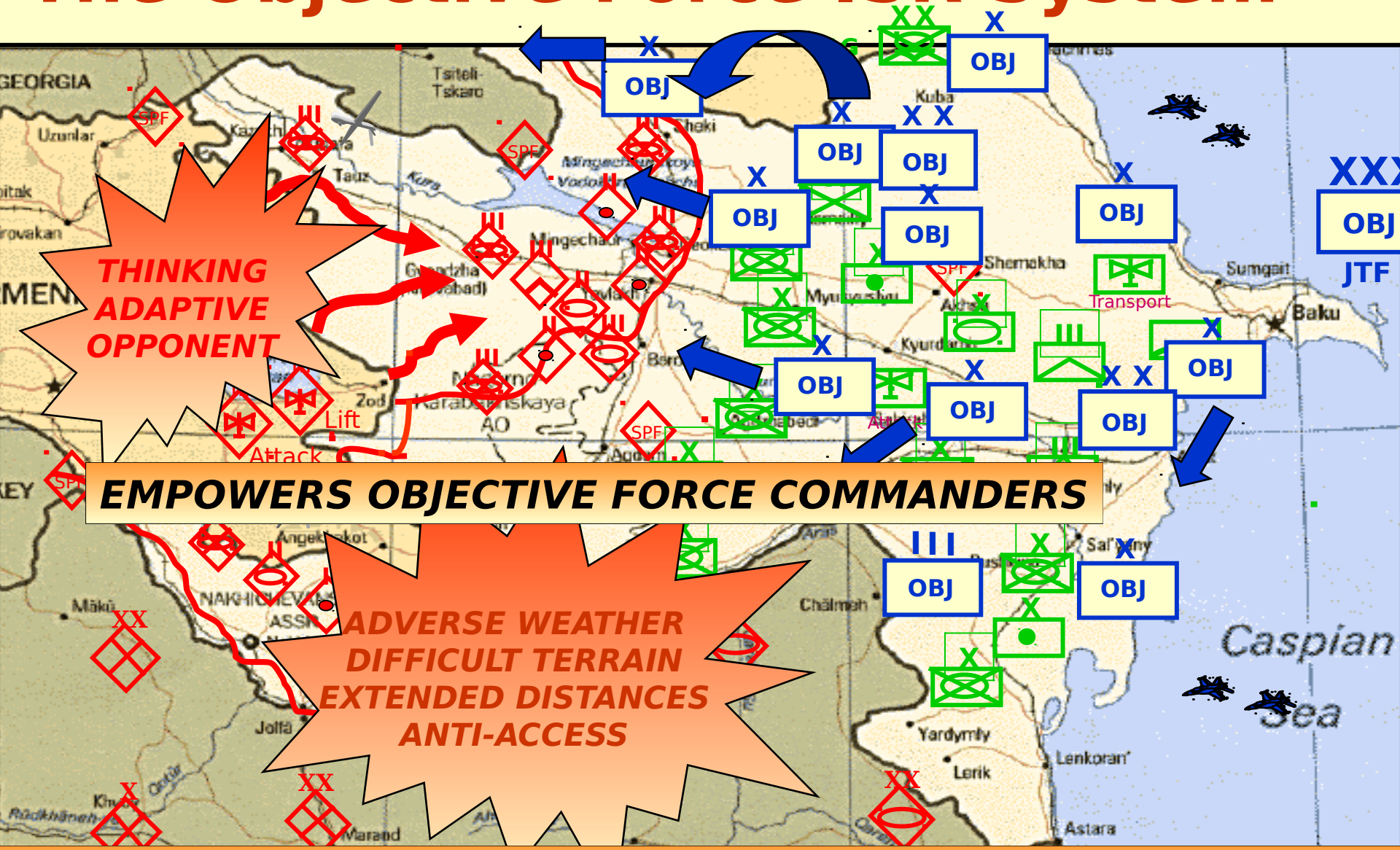
Allies

IO/NGO



e - *Responsive, Deployable, Agile, Versatile, Lethal, Survivable, Susta*

The Objective Force ISR System -



SEE FIRST - UNDERSTAND FIRST -ACT FIRST - FINISH DECISIVELY

The Objective Force ISR System-

TOMORROW

FULLY

Enables

Multi-dimensional
Linear & non-linear
Precision
Simultaneity
Distributed Ops

DESIGN PARAMETERS

- ✓ Joint links
- ✓ Knowledge based
- ✓ Commonality
- ✓ Modularity
- ✓ Full spectrum
- ✓ Multidiscipline
- ✓ Echeloned structure
- ✓ Balance organic & reach
- ✓ Enable & balance analysis & collection
- ✓ Troops in contact leveraged

Endstate

See & understand first in all conditions of terrain & wx, full spectrum, offset deception & anti-access

e - Responsive, Deployable, Agile, Versatile, Lethal, Survivable, Susta